



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

46852 7590 06/23/2010

LIU & LIU
444 S. FLOWER STREET, SUITE 1750
LOS ANGELES, CA 90071

EXAMINER

CHIEN, LUCY P

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 06/23/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/596,416

06/13/2006

Akimitsu Tsuda

1176/306

6382

TITLE OF INVENTION: BACKLIGHT DEVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	09/23/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

46852 7590 06/23/2010

LIU & LIU
444 S. FLOWER STREET, SUITE 1750
LOS ANGELES, CA 90071

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,416	06/13/2006	Akimitsu Tsuda	1176/306	6382

TITLE OF INVENTION: BACKLIGHT DEVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	09/23/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
CHIEN, LUCY P	2871	349-061000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,416	06/13/2006	Akimitsu Tsuda	1176/306	6382
46852	7590	06/23/2010	EXAMINER	
LIU & LIU 444 S. FLOWER STREET, SUITE 1750 LOS ANGELES, CA 90071			CHIEN, LUCY P	
			ART UNIT	PAPER NUMBER
			2871	
DATE MAILED: 06/23/2010				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 596 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 596 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	10/596,416	TSUDA, AKIMITSU	
	Examiner	Art Unit	
	LUCY P. CHIEN	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed on 6/13/2006.
2. ☒ The allowed claim(s) is/are 1,4-12,14,16-19,21,22.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Art Unit: 2871

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Wen Liu on 6/11/2010.

The application has been amended as follows:

The claims are amended as set forth below:

LISTING OF CLAIMS:

1. (Currently amended): A backlight device comprising:

a light guide means, having a pair of main surfaces ~~facing faced~~ each other and a pair of edge surfaces ~~facing faced~~ each other, for guiding the light from a light source arranged on one edge surface to both of main surfaces; and

~~a control device~~ ~~control means for~~ controlling said light source ~~to illuminate~~ ~~for illuminating~~ a main lighting region having relatively large size on a side of one main surface through said light guide means, and ~~to illuminate~~ ~~illuminating~~ a sub-lighting region having relatively small size on a side of another main surface through said light guide means, wherein said ~~control device~~ ~~controlling means~~ comprises mode ~~selection switch~~ ~~select means for~~ selecting either a mode of illuminating the main lighting region or a mode of illuminating the sub-lighting region; and ~~a power switch~~ ~~means for~~ switching the ~~a~~ power supply to said light source according to the mode selected by said mode ~~selection switch~~ ~~select means~~, and wherein said power switch ~~supplies whole light source with electric power in the mode of illuminating the main lighting region, and supplies a part of the light source less than the whole light source with electric power in the mode of lighting the sub-lighting region.~~

2. (Canceled)

3. (Canceled)

4. (Currently amended): The device as claimed in claim 1, wherein said light source has a plurality of LEDs arranged in parallel along said one edge surface, said ~~power switch means~~ supplies only some but not all of the plurality of LEDs having higher contribution to the illumination of the sub-lighting region with the electric power in the mode of illuminating the sub-lighting region.

5. (Original): The device as claimed in claim 4, wherein said LEDs having higher contribution to the illumination are center-located LEDs of the plurality of LEDs arranged in parallel.

6. (Currently amended): The device as claimed in claim 1, wherein said light guide ~~means~~ has a diffusion member means and an isotropic prism member on both of the main surfaces respectively.

7. (Currently amended): The device as claimed in claim 1, wherein said light guide ~~means~~ has a semitransparent reflective member on the main surface of the sub-lighting region side.

8. (Previously presented): A liquid crystal display device having a backlight device as claimed in claim 1.

9. (Currently amended): A backlight device, comprising:

a light guide having a first and second light emitting surfaces facing each other and a plurality of edge surfaces between the first and second light emitting surfaces, wherein the first light emitting surface emits light in a first lighting region that illuminates a first display, and the second light emitting surface emits light in a second lighting region that illuminates a second display, and wherein the first lighting region overlaps the second lighting region with respect to the first and second light emitting surfaces of the light guide;

a light source positioned along one of said plurality of edge surfaces, wherein light from said light source is directed to the first lighting region and the second lighting region; and

a controller controlling different amount of light from the light source to be emitted into the light guide, wherein the amount depends on whether light is desired to be emitted through the light guide to illuminate the first display or the second display, wherein the light source comprises a plurality of light emitting devices arranged along said one of the plurality of edge surfaces of the light guide, wherein the controller is configured to switch on a first set of a first number of light emitting devices when light is desired to be emitted through the light guide to illuminate the first display, and a second set of a second number of light emitting devices when light is desired to be emitted through the light guide to illuminate the second display, and wherein the first number and the second number are different.

10. (Previously presented): The device as in claim 9, wherein the first lighting region covers a first illumination area and the second lighting region covers a second illumination area, wherein the second illumination area is relatively smaller than the first illumination area.

11. (Previously presented): The device as in claim 10, wherein the second illumination area overlaps entirely within the second illumination area.

12. (Previously presented): The device as in claim 11, further comprising a semi-transparent reflective member on the second light emitting surface of the light guide, wherein the semi-transparent reflective member partially reflect back light emitted from the second light emitting surface and partially transmit light away from the second light emitting surface towards the second display.

13. (Canceled)

14. (Previously presented): The device as in claim 9, wherein the amount of light from the light source is controlled to be relatively less when light is to be emitted through the light guide to illuminate the second display.

15. (Canceled)

16. (Currently amended): The device as in claim 9 ~~[[15]]~~, wherein the first number of light emitting devices in the first set is larger than the second number in the second set.

17. (Currently amended): The device as in claim 9 ~~[[15]]~~, wherein the first set of light emitting devices contribute to light to be emitted through the light guide to illuminate the first display, and the second set of light emitting devices contribute to light to be emitted through the light guide to illuminate the second display.

18. (Previously presented): The device as in claim 17, wherein when the second set of light emitting devices are a subset within the first set of light emitting devices.

19. (Previously presented): A display device, comprising:
a first display and a second display;
a light guide having a first and second light emitting surfaces facing each other and a plurality of edge surfaces between the first and second light emitting surfaces, wherein the first light emitting surface emits light in a first lighting region that illuminates the first display, and the second light emitting surface emits light in a second lighting region that illuminates the second display, and wherein the first lighting region overlaps the second lighting region with respect to the first and second light emitting surfaces of the light guide; and

a light source positioned along one of said plurality of edge surfaces, wherein light from said light source is directed to the first lighting region and the second lighting region; and

a controller controlling different amount of light from the light source to be emitted into the light guide, wherein the amount depends on whether light is desired to be emitted through the light guide to illuminate the first display or the second display, wherein the light source comprises a plurality of light emitting devices arranged along said one of the plurality of edge surfaces of the light guide, wherein the controller is configured to switch on a first set of a first number of light emitting devices when light is desired to be emitted through the light guide to illuminate the first display, and a second set of a second number of light emitting devices when light is desired to be emitted through the light guide to illuminate the second display, and wherein the first number and the second number are different.

20. (Canceled)

21. (New): The device as in claim 19, wherein the first lighting region covers a first illumination area and the second lighting region covers a second illumination area, wherein the second illumination area is relatively smaller than the first illumination area.

22. (New): The device as in claim 19, wherein the amount of light from the light source is controlled to be relatively less when light is to be emitted through the light guide to illuminate the second display.

Art Unit: 2871

The following is an examiner's statement of reasons for allowance:

Claims 1,4-12,14,16-19,21,22 are allowed.

Regarding Claim 1,

Hirayama Yuichi (Drawing 1, Drawing 3) discloses a backlight for a display including a light guide means (106), having a pair of main surfaces (where 112 is pointing to) faced each other and a pair of edge surfaces (the edges that are perpendicular to 112) faced each other, for guiding the light (106) from a light source (105) arranged on one edge surface to both of main surfaces; main lighting region having relatively large size on a side of one main surface through said light guide means (106), and illuminating a sub-lighting region (109) having relatively small size on a side of another main surface through said light guide means (106).

The prior art does not disclose a control device and a mode selection switch selecting either a mode of illuminating the main or the sub lighting region. The power switch supplies whole light source with electric power in the mode of illuminating the main lighting region, and supplies a part of the light source less than the whole light source with electric power in the mode of lighting the sub lighting region.

Claims 4-8 depend on Claim 1, therefore are allowable.

Regarding Claim 9,19,

The prior art does not disclose wherein the controller is configured to switch on a first set of a first number of LED's and a second number of LEDs to illuminate the second display, wherein the first number and second number are different.

Claims 10-12,14,16-18 depend on Claim 9, therefore are allowable.

Claims 21,22 depend on Claim 19, therefore are allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUCY P. CHIEN whose telephone number is (571)272-8579. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571)272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/596,416

Page 11

Art Unit: 2871

Lucy P Chien

Examiner

Art Unit 2871

/David Nelms/

Supervisory Patent Examiner, Art Unit 2871